



## Model # 62-9 Insertion Probe (Shown with 9500P Integral Transmitter)

Thermal Instrument Model # 62-9 is a versatile flow measurement solution for both liquid and gas flows in larger pipe sizes, ventilation ducts, and stacks. The insertion probe style is adaptable to various line sizes, and offers a variety of process connections. The single piece design has no apertures, deterring particles from collecting and distorting the flow signal. It can be used in applications where the process temperatures reach 350 °F (176°C). Can be Calibrated to conditions up to 1000:1 Turndown due to the sensor design.

The 62-9 is built using 316SS, lending itself to be extremely durable in the toughest environments. Exotic materials and coatings are available upon request to further enhance the durability.

Thermal Mass technology offers excellent accuracy, repeatability, and turndown with built in temperature and pressure compensation. Contact your Thermal Instrument Sales Associate to find out more.

### Standard Features:

- ½" or ¾" OD
- ¾" MNPT Compression Fitting Connection
- 316SS Material
- (2) RTD Sensors for Flow and Temperature with (2) Redundant Backup Sensors
- Standard Lengths of 9", 14", and 25" to suit wide range of pipe sizes
- Can be married to Integral or Remote Electronic Transmitters and Flow Switches
  - 9500P Integral or 9500P Remote
  - 9200B Panel Mount Remote Electronics
  - 926 Remote Electronics



### Applications:

Gas Flow Measurement, Liquid Measurement, Environmental Compliance, Flare Gas, Flue Gas, Wastewater Treatment, Tank Storage Venting, Safety Monitoring, Aeration, Combustion Control, Compressed Air Monitoring, and Sub-Metering to name a few

### Gases:

All Inert, Clean, and non-condensing gases. Natural Gas, CO2 Gas, Hydrocarbons, Hydrogen, Flammables, and Corrosive

### Liquids:

Water, Glycol, Oils, Heat Transfer Fluids, and others

**Thermal Instrument Flow Meters**

# Model # 62-9 Insertion Probe Mass Flow Meter

## Thermal Mass Technology Advantages:

- Accurate
- Repeatable Measurements
- High Turndown up to 1000:1
- Capable of measuring low flow rates
- Non-wetted sensors do not come into direct contact with fluid
- Operates in varying pressures
- Temperature Compensated
- No Moving Parts

## Options:

### Wetted Materials:

316SS (Std.), Hastelloy-C, Tantalum, and others are available by request

### Process Connections:

1/2", 3/4" & 1" MNPT Compression Fitting, Insert Flange, Tri-Clover, Welded Union

Hot Tap Assembly with 1" Full Port Ball Valve

Mechanical Retractor System

### Probe Size (OD):

1/2" or 3/4" Std. 1", 1 1/2", 2" Application Dependent.

### Probe Length:

9", 14", 25" (Std.). Custom Lengths Available

### Protective Coatings Available:

Teflon, Others

## Standard Installation:

10 pipe diameters before meter install point and 5 pipe diameters after meter without any piping changes. If those conditions cannot be met, Thermal Instrument, in some instances, can simulate piping in order to calibrate to installation conditions.



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## Engineering Specifications:

### Accuracy:

±0.50% of Full Scale\*\*

### Repeatability:

± .20% of Rate

### Turndown:

10:1 Std. up to 1000:1 Application Dependent

### Temperature Span:

Operating Temperature ± 50°F

### Response Time:

Gas —1 Second ; Liquids < 500ms

### Flowrates:

Gas 40—20,000 SFPM

Liquid 0—10 FPS

### Pressure Rating:

Varies by Application & Process Connection

### Temperature:

-40—350 °F (Std), -40—176°C (Std.)

\*\* Note—Accuracy of Meter Reading based on Air and meeting all piping conditions

## Transmitter Specifications (Integral or Remote):

Model Shown: 9500P

Display: 8 Digit Flow Rate & Total Flow Rate

Power: 120 / 240 VAC, 50/60 Hz

24 VDC, 1 Amp

Outputs: 4-20 MADC Flow (Std.)

4-20 MADC Temperature (Opt.)

Optional Outputs:

0-5 VDC, 0-10 VDC Optional

Pulse Output (Opt.)

Modbus RS 485

Hart Communication

Remote Up to 2000'. Signal Cable - 18 Gauge, 2 Pair with shield

Communication via Micro USB & 4 Button Menu System (Opt.)

### Adjustable Variables:

Filter Factor, Flow Full Scale, Flow Factor, Pipe ID, Zero Cutoff %, Modbus ID Value

## Enclosure Specifications:

Cast Aluminum, Epoxy painted with window

Connection 3/4" FNPT Power & Signal

Ratings Nema 4, Explosion Proof, Class 1, Div 1 Groups B, C, D Weatherproof

Temperature Ambient -13 to 140°F (-25 to 60°C)

Storage -40 to 158°F (-40 to 70°C)